SATO
DCS & Labeling Worldwide

Quick Guide

For printer model:

CG2 Series

CG208DT
CG212DT
Direct Thermal Type
203 dpi/ 305 dpi

CG208TT
CG212TT
Thermal Transfer Type
203 dpi/ 305 dpi

PN: 9001214A

Read this manual before before using this printer.
Keep this document available for future reference.

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FCC Statement

The printer complies with the requirements in Part 15 of FCC Rules for a Class B Computing Device. Operating the printer in a residential area may cause unacceptable interference to radio and TV reception. If the interference is unacceptable, you can reposition the equipment, which may improve reception.

Safety Precautions

Please read the following information carefully before installing and using the printer.

Pictographic Symbols

This instruction manual and the printer labels use a variety of pictographic symbols to facilitate safe and correct use of the printer and to prevent injury to others and property damage. The symbols and meanings for them are given below. Be sure to understand these symbols well before reading the main text.

Warning	Ignoring the instructions marked by this symbol and erroneously operating the printer could result in death or serious injury.
Caution	Ignoring the instructions marked by this symbol and erroneously operating the printer could result in injury or property damage.

Example Pictographs

The △ pictograph means "Caution is required." A specific warning symbol is contained inside this pictograph (The symbol at left is for electric shock).

The ⃠ pictograph means "Should not be done." What is specifically prohibited is contained in or near the pictograph (The symbol at left means "Disassembly prohibited").

The ● pictograph means "Must be done." What is specifically to be done is contained in the pictograph (The symbol at left means "Unplug the power cord from the outlet").

⚠ Warning

Do not set on an unstable area

- Do not set on an unstable area, such as a wobbly table or slanted area or an area subject to strong vibration. If the printer falls off or topples over, it could injure someone.

Do not place containers full of water or other liquid on the printer

- Do not place flower vases, cups, or other containers holding liquids, such as water or chemicals, or small metal objects near the printer. If they are spilled and get inside the printer, immediately turn off the power switch, unplug the power cord from the outlet, and contact the dealer, or Support Center. Using the printer in this condition could cause a fire or electric shock.

Do not put objects inside the printer

- Do not insert or drop in metal or burnable objects inside the printer's openings (cable outlets, etc.). If foreign objects do get inside the printer, immediately turn off the power switch, unplug the power cord from the outlet, and contact the dealer, or Support Center. Using the printer in this condition could cause a fire or electric shock.

Do not use other than the specified voltage

- Do not use other than the specified voltage. Doing so could result in fire or electric shock.

Always ground the connections

- Always connect the printer's ground wire to a ground. Not grounding the ground wire could result in electric shock.

Handling of the power cord

- Do not damage, break, or modify the power cord. Also, do not place heavy objects on the power cord, heat it, or pull it because doing so could damage the power cord and cause a fire or electric shock.
- If the power cord becomes damaged (core is exposed, wires broken, etc.), contact the dealer, or Support Center. Using the power cord in this condition could cause a fire or electric shock.
- Do not modify, excessively bend, twist, or pull the power cord. Using the power cord in such a condition could cause a fire or electric shock.

When the printer has been dropped or broken

- If the printer is dropped or broken, immediately turn off the power switch, unplug the power cord from the outlet, and contact the dealer, or Support Center. Using the printer in this condition could cause a fire or electric shock.

Do not use the printer when something is abnormal about it

- Continuing to use the printer in the event something is abnormal about it, such as smoke or unusual smells coming from it, could result in fire or electric shock. Immediately turn off the power switch, unplug the power cord from the outlet, and contact the dealer, or Support Center for repairs. It is dangerous for the customer to try to repair it, so absolutely do not attempt repairs on your own.

Do not disassemble the printer

- Do not disassemble or modify the printer. Doing so could result in fire or electric shock. Ask the dealer or Support Center to conduct internal inspections, adjustments, and repairs.

Regarding the cutter

- Do not touch the cutter with your hands or do not put something into the cutter. Doing so could result in an injury.

Using the head cleaning fluid

- Use of flame or heat around the head cleaning fluid is prohibited. Absolutely do not heat it or subject it to flames.
- Keep the fluid out of reach of children to prevent them from accidentally drinking it. If the fluid is drunk, immediately consult with a physician.

⚠ Caution

Do not place in areas with high humidity

• Do not place the printer in areas with high humidity or where condensation forms. If condensation forms, immediately turn off the power switch and do not use the printer until it dries. Using the printer while condensation is on it could result in electric shock.

Carrying the Printer

• When moving the printer, always unplug the power cord from the outlet and check to make sure all external wires are disconnected before moving it. Moving the printer with the wires still connected could damage the cords or connecting wires and result in a fire or electrical shock.

• Do not carry the printer with paper loaded in it. The paper could fall out and cause an injury.

• When setting the printer on the floor or a stand, make sure not to get your fingers or hands pinched under the printer feet.

Power supply

• Do not operate the power switch or plug in/unplug the power cord with wet hands. Doing so could result in electric shock.

Power cord

• Keep the power cord away from hot devices. Getting the power cord close to hot devices could cause the cord's covering to melt and cause a fire or electrical shock.

• When unplugging the power cord from the outlet, be sure to hold it by the plug. Pulling it by the cord could expose or break the core wires and cause a fire or electric shock.

• The power cord set that comes with the printer is especially made for this printer. Do not use it with any other electrical devices.

Top cover

• Be careful not to get your fingers pinched when opening or closing the top cover. Also be careful the top cover does not slip off and drop.

Print head

• The print head is hot after printing. Be careful not to get burned when replacing paper or cleaning immediately after printing.

• Touching the edge of the print head with bare hands could result in injury. Be careful not to become injured when replacing paper or cleaning.

Loading paper

• When loading roll paper, be careful not to get your fingers pinched between the paper roll and the supply unit.

When not using the printer for a long time

• When not using the printer for a long time, unplug the power cord from the outlet to maintain safety.

During maintenance and cleaning

• When maintaining and cleaning the printer, unplug the power cord from the outlet to maintain safety

Precautions for Installation and Handling

Printer operation can be affected by the printer environment.
Refer to the following instructions for installation and handling of CG2 Series printer.

Select a Safe Location

Place the printer on a surface that is flat and level.

If the surface is not flat and level, this may result in poor print quality. This may also cause malfunction and shorten the life span of the printer.

Do not place the printer on a location that produces vibration.

Do not carry the printer when the roll label is set. Giving serious vibration or shock to the printer may cause malfunction and shorten the life span of the printer.

Do not place the printer near crane or pressing machine.

Machinery, such as cranes and pressing machines requires large amount of power. Being near this machinery may cause electrical noise or voltage reduction. Avoid such locations to reduce the risk of malfunction or damage to the printer.

Keep the printer out of high temperature and humidity.

Avoid locations subject to extreme or rapid changes in temperature or humidity. Exposure to these conditions may cause electrical problems within the printer.

Do not place the printer in a location subject to water or oil.

Do not place the printer in a location where it will be splashed with water or oil. Water or oil entering inside the printer may cause a fire, electric shock, or malfunction.

Avoid dust.

Dust build up may result in poor print quality. This may cause not only malfunction but also shorten the life span of the printer.

Keep out of direct sunlight.

This printer has a built-in optical sensor. Exposure to direct sunlight will make the sensor less responsive and may cause the label to be sensed incorrectly. Close the top cover when printing.

Power Supply

This printer requires an AC power supply.

Be sure to connect the printer to an AC power supply via the supplied AC adapter. Failure to do so may result in malfunction.

Connect the power cord to a grounded power outlet.

Make sure that the printer is plugged into a grounded power outlet.

Provide a stable source of electricity to the printer.

Do not share the power outlets with other appliances such as a heater and refrigerator requiring a measurable amount of power. Also, avoid using the power outlet near where such appliances are plugged into. This may cause voltage reduction and malfunction.

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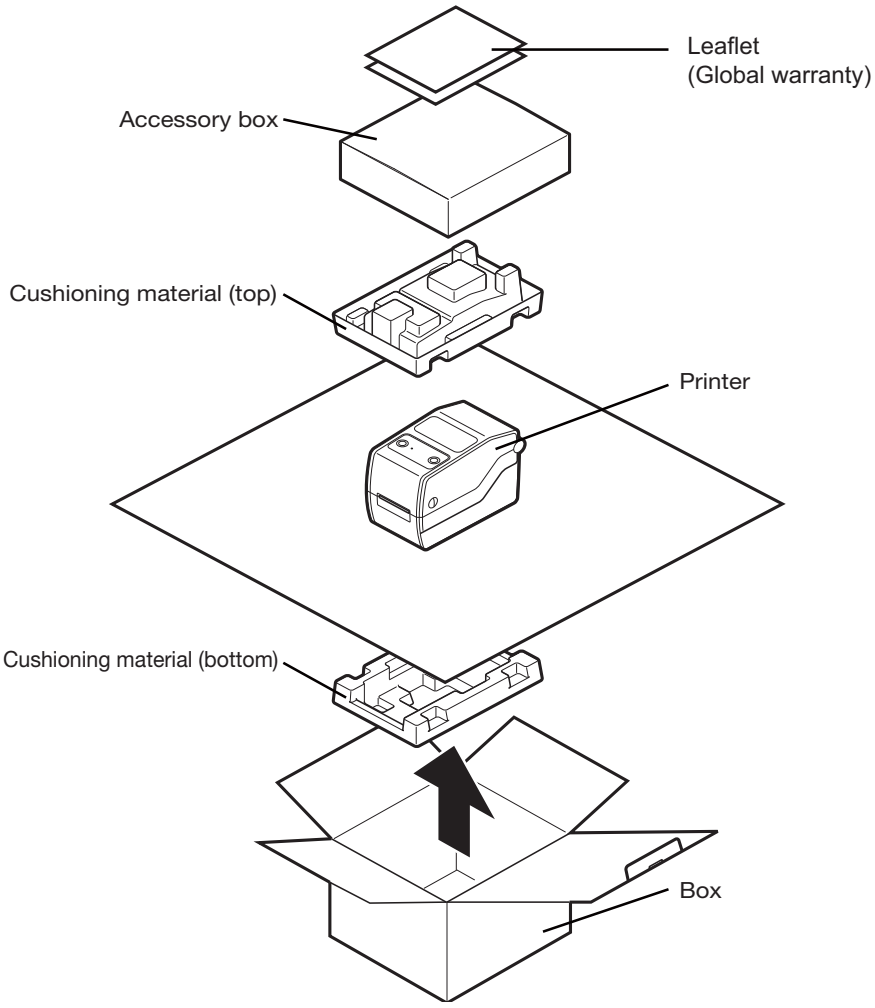
1

UNPACKING

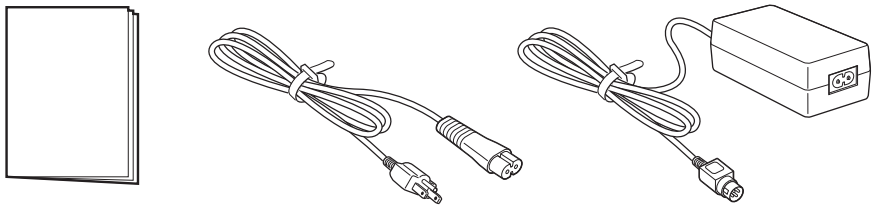
Unpack the box, and then set up the printer.



The shape of the cushioning material (cushions that hold the printer in place) may differ slightly from the diagram shown above.

CHECKING ACCESSORIES

Make sure that you have received all of the following items in the package. If there are any accessories missing, contact your SATO reseller from whom you purchased the printer.



User documents
(Quick Guide, warranty)

AC power cord

AC adapter

Note: The shape of the plug on the AC power cord may vary, depending on the location in which it was purchased.

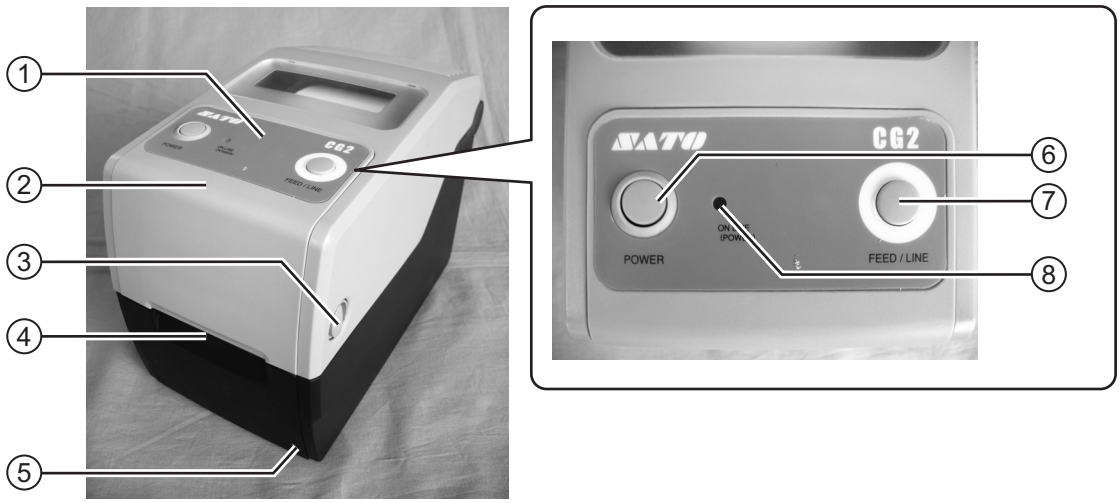
About the box

Please retain both the box in which the printer was packed and the cushioning material (cushions that hold the printer in place). If you need to send in the printer for repair, repack it in this box.

2

NAMES OF PARTS

Front view



① **Operator panel**

It consists of two contact buttons and one two-color (red and green) LED indicator.

② **Top cover**

Open this cover to load the media and ribbon.

③ **Cover open/close latch**

Pull these latches on both sides of the printer forward to open the Top cover of the printer.

④ **Media ejection slot**

Opening for media output.

⑤ **VR3 potentiometer (Offset/ Pitch)**

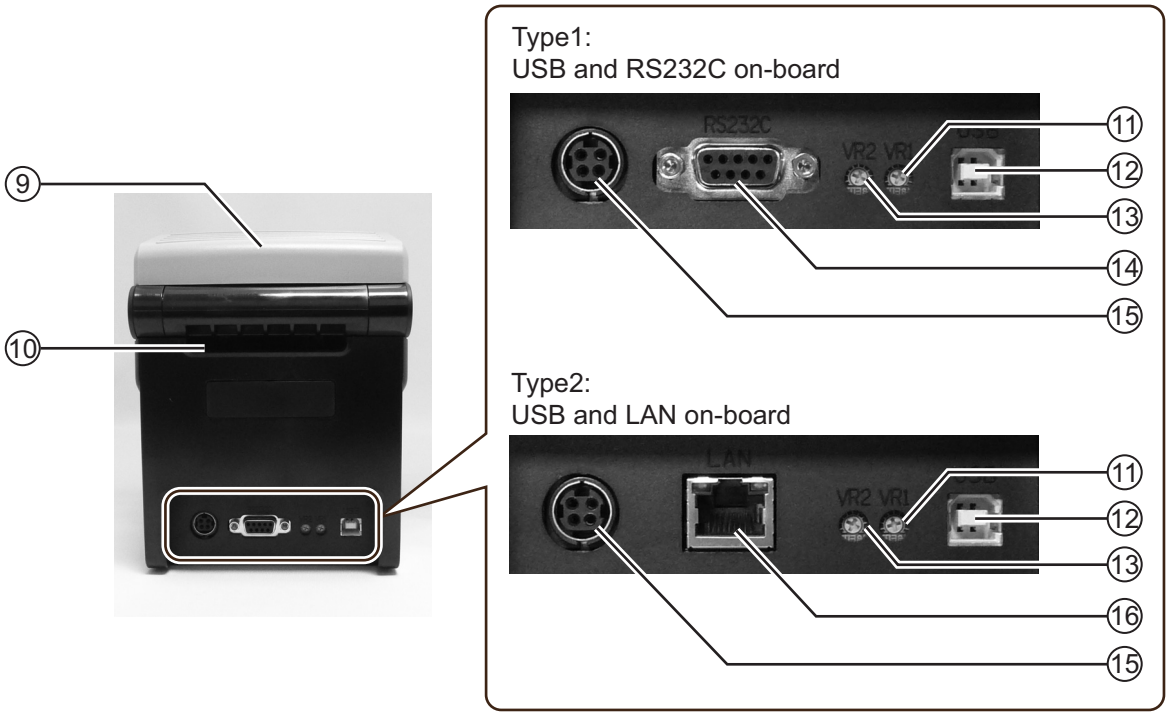
This potentiometer adjusts the option (Cutter, Dispenser, Tear-off) stop position (offset position).

Pitch position adjustment is also available in the Pitch adjustment VR mode of Factory Adjustment mode.

⑥ **POWER button**

Press this button to turn the power on or off.

Back view



⑨ **Top cover**

⑩ **Media inlet**

An opening for Fan-folded media or media from unwinder to feed in to the printer.

⑪ **VR1 potentiometer (Gap)**

This potentiometer is used to adjust the sensing level for the gap sensor.

⑫ **USB interface terminal**

To connect printer to the host computer using the USB interface.

Or, to connect the optional wireless LAN interface unit to the printer (This applies only to the Type 1 board).

⑬ **VR2 potentiometer (I-Mark)**

This potentiometer is used to adjust the sensing level of the I-Mark sensor.

⑭ **RS-232C interface terminal**

To connect printer to the host computer using RS-232C interface.

Or, to connect the optional Keypad to the printer.

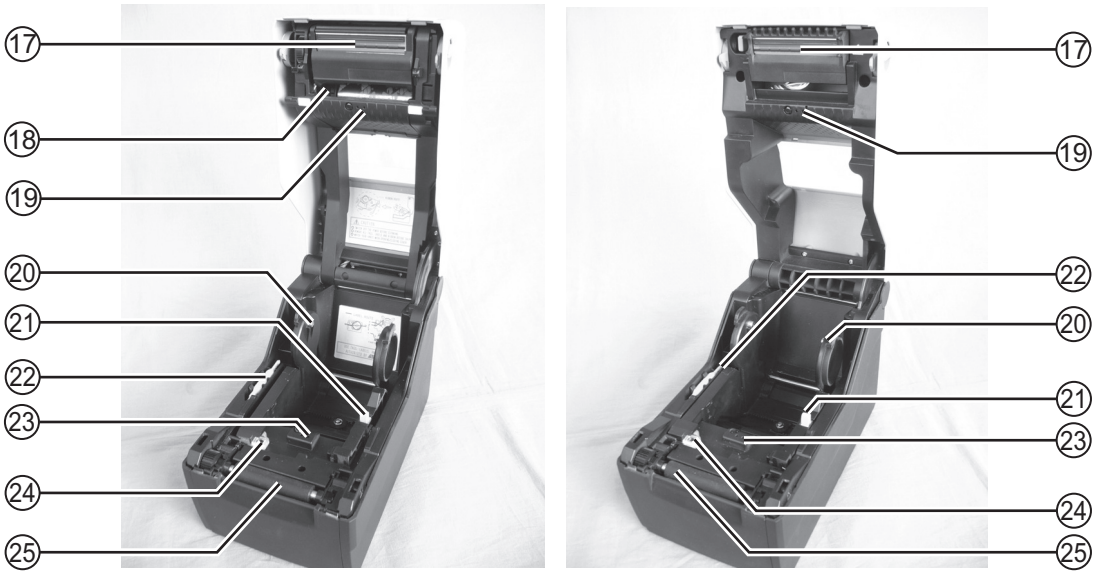
⑮ **DC input power terminal**

Supplies power to the printer by inserting the power cable via the AC adapter.

⑯ **LAN interface terminal**

To connect printer to the host computer using LAN interface.

Internal view when Top Cover is opened



CG208TT/ CG212TT CG208DT/ CG212DT

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⑰ **Print head**

This component is used to print on the paper. Perform maintenance at regular intervals.

⑱ **Ribbon unit**

Used to load the ribbon and wind up the used ribbon.

⑲ **Upper Gap sensor**

Detects the gap of the label or center-hole in the tag stock.

⑳ **Roll media holder**

To hold the roll media.

㉑ **Media guide slide lever**

Set to meet the size of the media used.

㉒ **Supplied yellow microdriver**

Used to adjust the potentiometers.

㉓ **Lower Gap sensor**

Detects the gap of the label or center-hole in the tag stock.

㉔ **I-Mark (Paper) sensor**

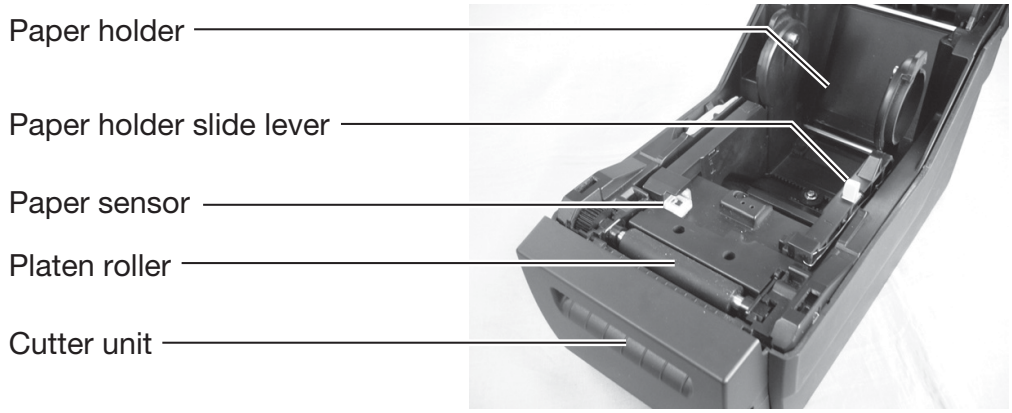
Detects the I-Mark on the media.

㉕ **Platen roller**

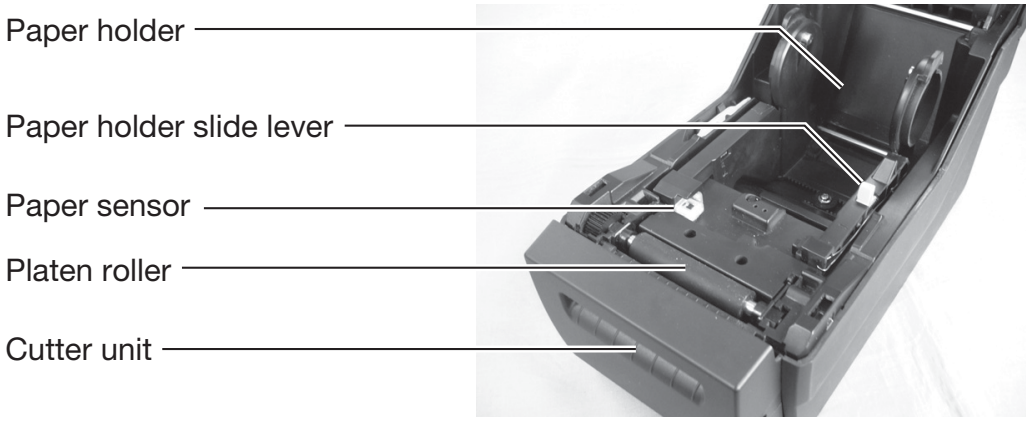
This roller feeds the paper. Perform maintenance at regular intervals.

When Top Cover Is Opened (Cutter Type, optional)

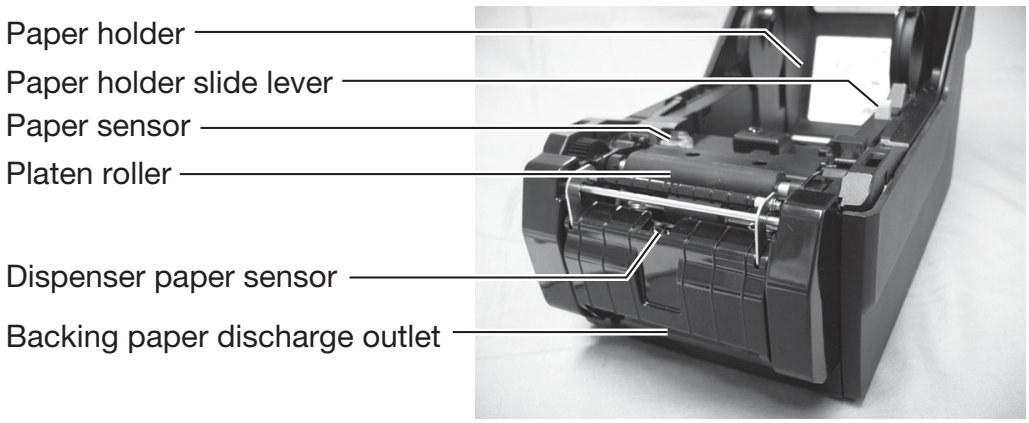
CG208/212 DT



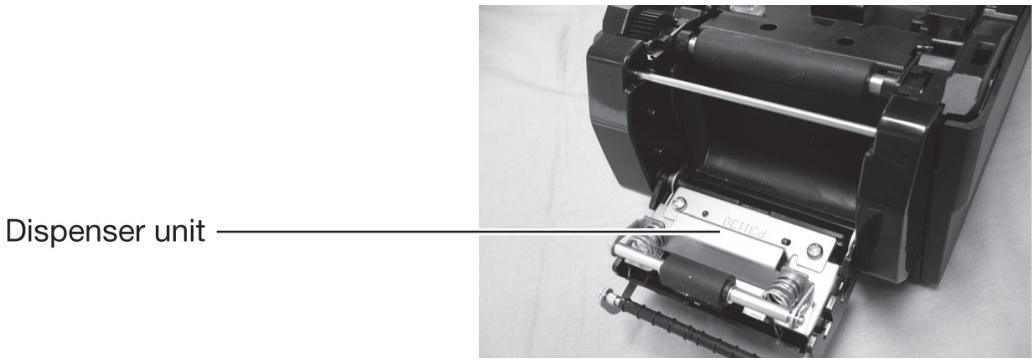
CG208/212 TT



When Top Cover Is Opened (Dispenser Type, optional)



When the dispenser unit is open



3

LOADING PAPER

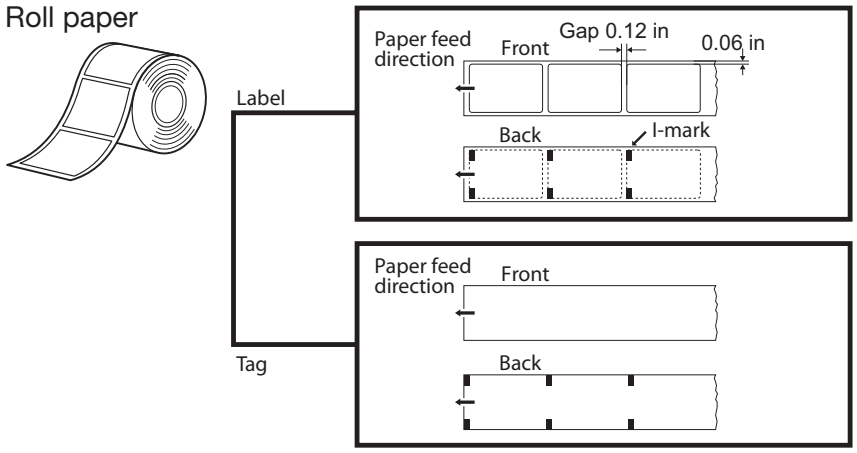
This printer can print on roll paper and fan-folded paper. The method of loading the paper varies for roll paper and fan-folded paper.

The printer uses a sensor to detect I-marks in the paper in order to precisely position the print content.

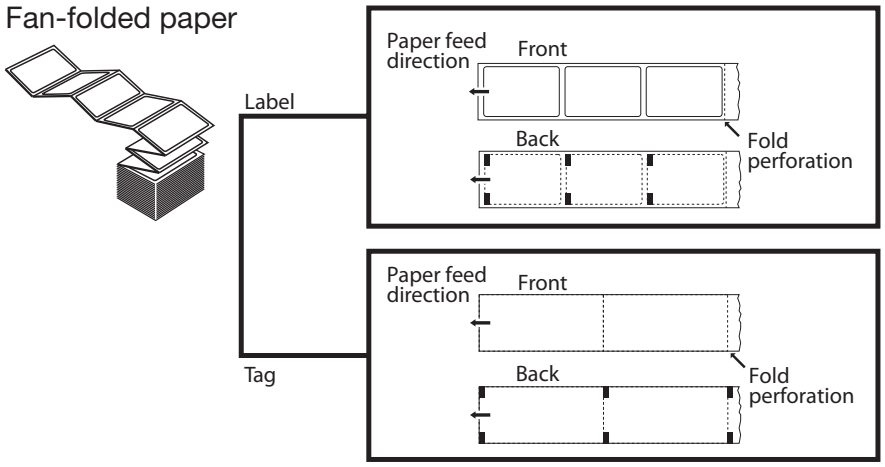
Be sure to use genuine SATO paper in this printer.

Do not use non-standard paper.

Roll paper



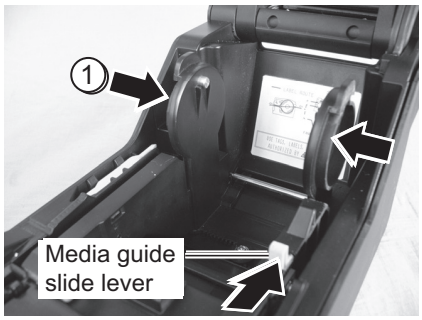
Fan-folded paper



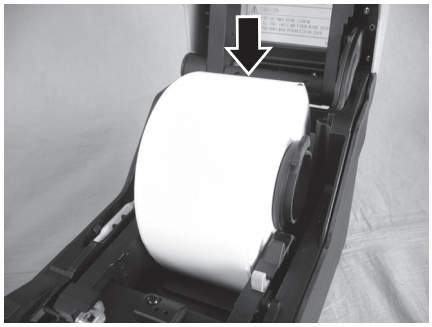
LOADING ROLL PAPER (CONTINUOUS/CUTTER TYPE)

1. Pull toward you the cover open and close latches (1) on both sides of the printer to unlock the top cover. Then, open the top cover (2).

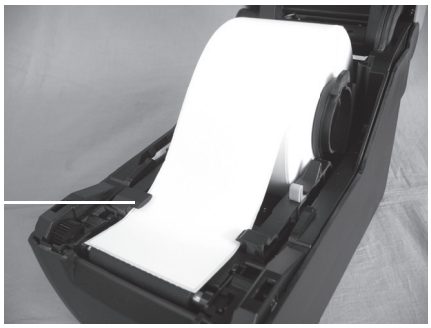
2. While holding the paper (media) holder slide lever, adjust the width of the paper holder (1) to match the paper size.



3. Load the media onto the **media holder**.

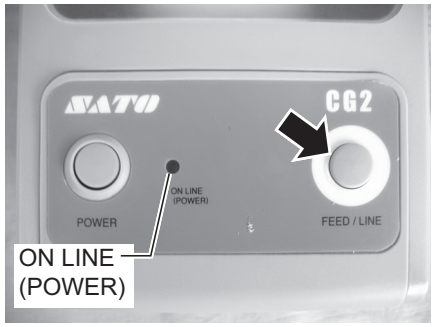


4. After pulling out the media, pass the paper through the **paper sensor** (under tab)**.** When using a cutter type printer, place the leading edge of the paper on top of the platen roller.



5. Close the top cover. Press the top cover from above in the direction of the arrows until it clicks into position.

6. When the printer is offline, the ON LINE (POWER) lamp blinks. Press the FEED/LINE button (1). The printer is online and the ON LINE (POWER) lamp is on. When the printer is ready, press the FEED/LINE button to output the top part of the paper.



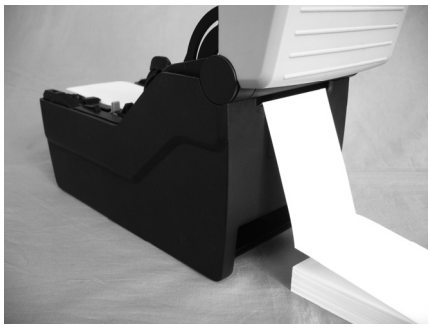
CAUTION

- After printing, the print head and surrounding area are hot. Be careful not to get burned when replacing paper immediately after printing.
- Touching the edge of the print head with bare hands could result in an injury.
- The cutter is sharp. Be careful not to cut your hands.
- Be careful not to get your fingers pinched while closing the top cover.

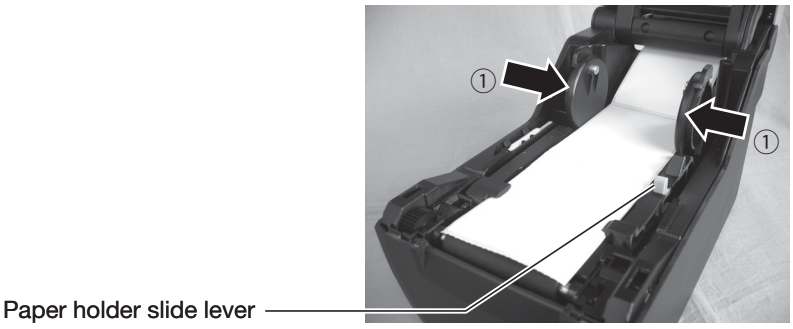
LOADING FAN-FOLDED PAPER (CONTINUOUS/CUTTER TYPE)

1. Pull toward you the cover open/close latches on both sides of the printer in order to unlock the top cover. Then, open the top cover.

2. Pass the paper through the opened window at the rear of the unit.

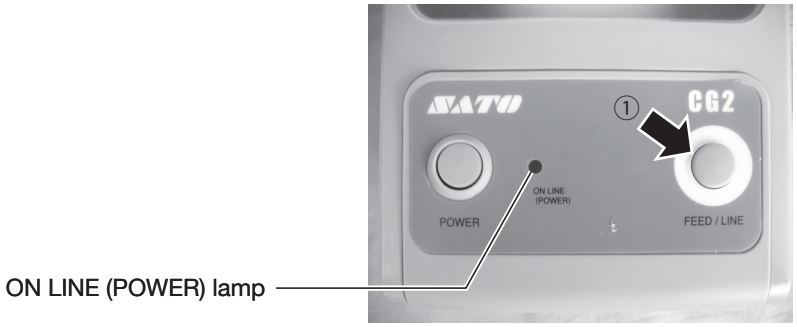


3. While holding the paper holder slide lever, adjust the width of the paper holder (1) to match the paper size. After pulling out the paper, pass it through the paper sensor. When using a cutter type printer, place the leading edge of the paper on top of the platen roller.



4. Close the top cover. Press the top cover down from above in the direction of the arrows until it clicks into position.

5. When the printer is offline, the ON LINE (POWER) lamp blinks. Press the FEED/LINE button (1). The printer is online and the ON LINE (POWER) lamp is on. When the printer is ready, press the FEED/LINE button to output the top part of the paper.

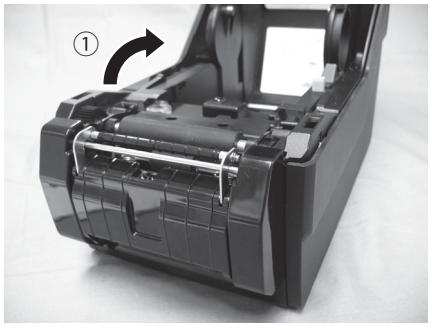


CAUTION

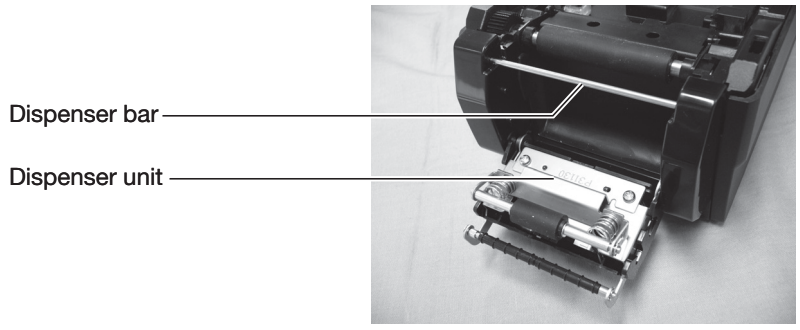
- After printing, the print head and surrounding area are hot. Be careful not to get burned when replacing paper immediately after printing.
- Touching the edge of the print head with bare hands could result in an injury.
- The cutter is sharp. Be careful not to cut your hands.
- Be careful not to get your fingers pinched while closing the top cover.

LOADING ROLL PAPER (DISPENSER TYPE)

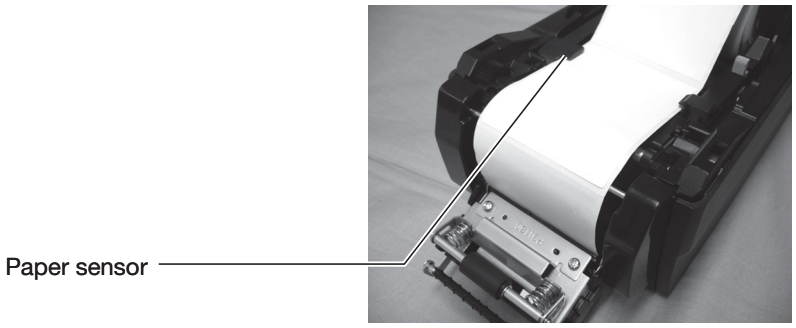
1. Pull toward you the cover open and close latches on the both sides of the printer in order to unlock the top cover. Then, open the top cover (1).



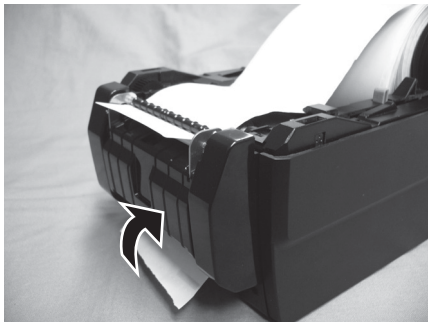
2. Open the dispenser unit.

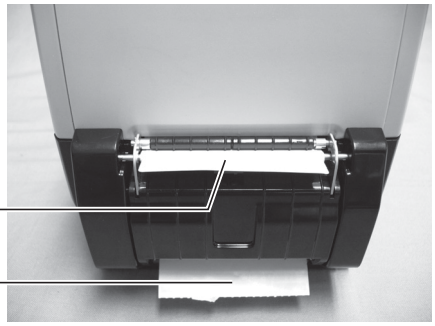


3. Remove the lead label, leaving only the backing paper. Load the paper in the paper holder. After pulling out the paper, pass the paper through the paper sensor. Pass the paper over the dispenser bar so as to cover it.

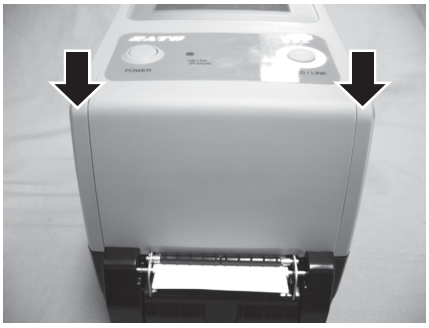


4. Load the backing paper so that it sticks out from the bottom of the dispenser unit. If the paper is not taut, roll the paper on the paper holder so that the paper is taut. Next, tightly close the dispenser unit by pressing it in the direction of the arrow.

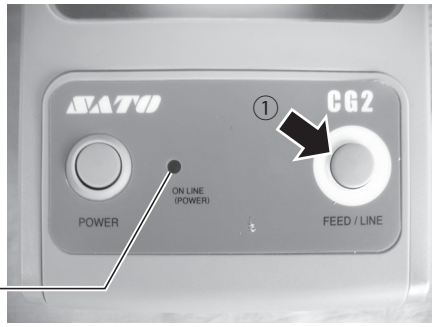




5. Close the top cover. Press the top cover from above in the direction of the arrows until it clicks into position.



6. When the printer is offline, the ON LINE (POWER) lamp blinks. Press the FEED/LINE button (1). The printer is online and the ON LINE (POWER) lamp is on. When the printer is ready, press the FEED/LINE button to output the top part of the paper.

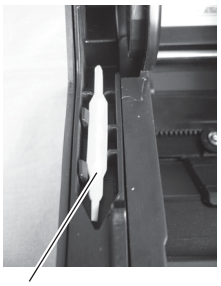


CAUTION

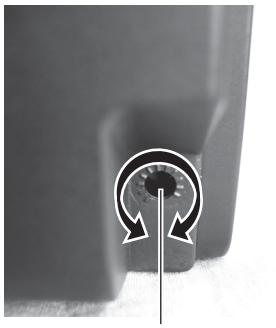
- After printing, the print head and surrounding area are hot. Be careful not to get burned when replacing paper immediately after printing.
- Touching the edge of the print head with bare hands could result in an injury.
- The cutter is sharp. Be careful not to cut your hands.
- Be careful not to get your fingers pinched while closing the top cover.

Adjusting the label dispensing stop position

Normally, the label is dispensed to the point where 0.1 inch (2 or 3 mm) of the label remains on the backing paper. If the label is not dispensed at the regular position, use the Phillips tip of the potentiometer adjustment screwdriver attached to the side of the paper holder to adjust the potentiometer for the label dispensing stop position located at the bottom right of the front panel. After adjusting the stop position, dispense two or three labels to fix the stop position.



Potentiometer adjustment screwdriver



For label dispensing stop position adjustment

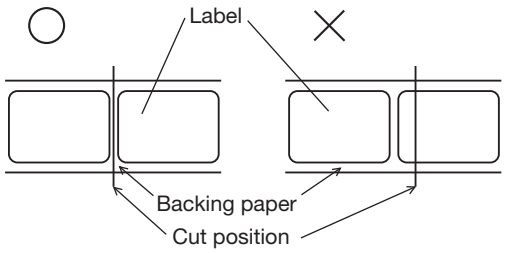
Turn left: The stop position moves in the opposite direction of the printing direction.
Turn right: The stop position moves in the same direction as the printing direction.

4

CUT POSITION ADJUSTMENT

LABEL CUT

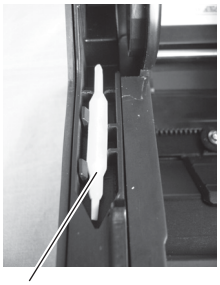
The label-cut position should be between labels or at the area with only the backing paper.



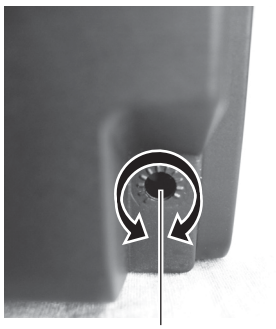
ADJUSTING THE CUT POSITION

If the cutting position is not at the regular position, use the Phillips tip of the potentiometer adjustment screwdriver attached to the side of the paper holder to adjust the potentiometer for the cut position.

Do not cut directly on a label, as the label adhesive can stick to the cutter blade and adversely affect its cutting ability.



Potentiometer adjustment screwdriver

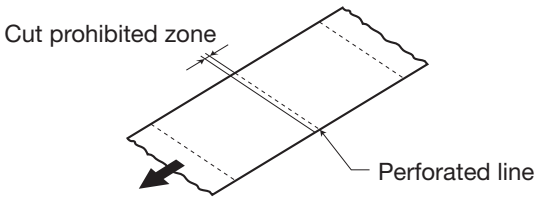


For label dispensing stop position adjustment

Turn left: The stop position moves in the opposite direction of the printing direction.
Turn right: The stop position moves in the same direction as the printing direction.

CUTTING PAPER WITH PERFORATED LINES

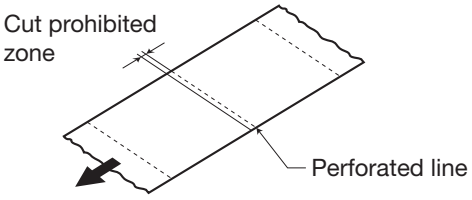
For paper with perforated lines, cutting on or in front of the perforated lines is prohibited. Cutting in those locations could cause the printer to malfunction. If paper is cut at or before the perforation, use the Phillips tip of the potentiometer adjustment screwsdriver to adjust the potentiometer for the cut position so that the paper is cut after the perforation.



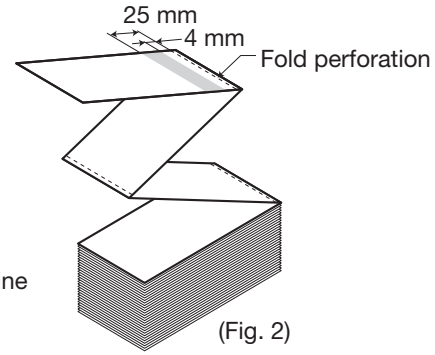
The following items are specifications for paper that can be used by this printer, so check them before using the printer.

1. Paper thickness (including the backing paper) is 0.00 to 0.01 inch (0.06 to 0.16 mm). For details, contact the dealer or Technical Support Center.
2. Cut accuracy is ± 0.06 inch (1.5 mm).

3. The cutter unit has a valid cut pitch of 0.98 to 23.74 inches (25 to 603 mm) (203 dpi)/0.98 to 15.87 inches (25 to 403 mm) (305 dpi).
4. The perforated line +0.04 inch (1 mm) is the cut prohibited zone (Fig. 1).
5. The folded perforated line 0.16 to 0.98 inch (+4 to +25 mm) of fan-folded paper is the cut prohibited zone (Fig. 2).
6. After adjusting the stop position, dispense two to five labels to fix the cut position.



(Fig. 1)



(Fig. 2)

REPLACING THE CUTTER

Over time, the cutter loses its cutting ability and begins to show signs of wear.

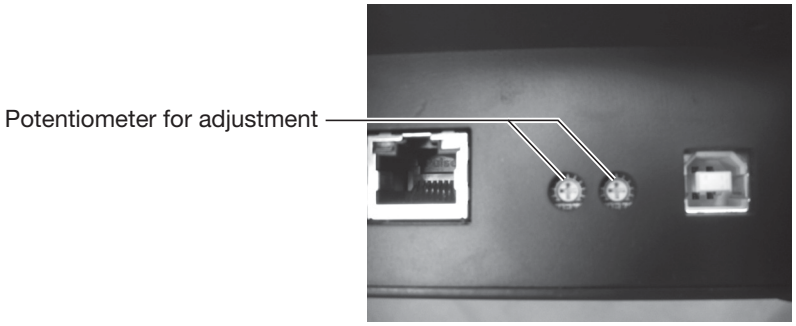
Replace the cutter unit at this time.

Contact the dealer or Customer Support Center for purchasing options.

Potentiometer for Adjustment

This potentiometer is for servicing the printer.

Do not change the potentiometer unless specifically instructed to do so.

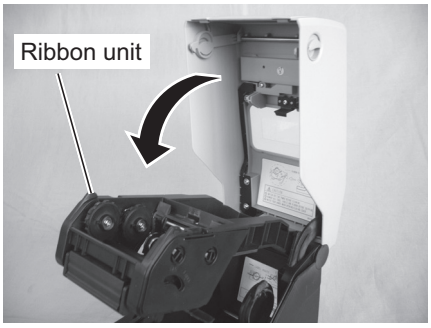


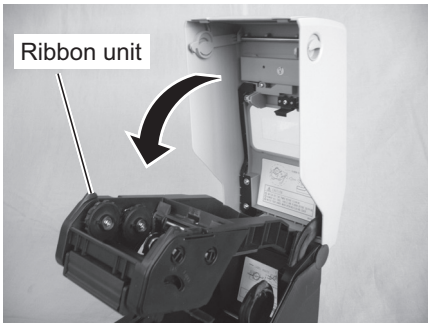
5

LOADING CARBON RIBBON

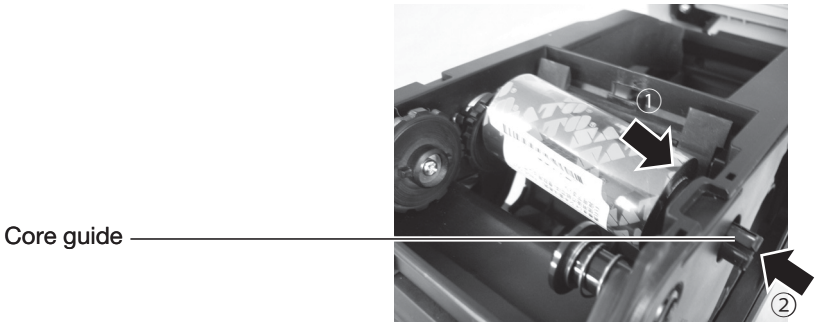
1. Pull toward you the cover open/close latches (1) on both sides of the printer to unlock the top cover. Then, open the top cover (2).

2. Pull toward you the lever on the middle of the ribbon unit to pull out the ribbon unit.

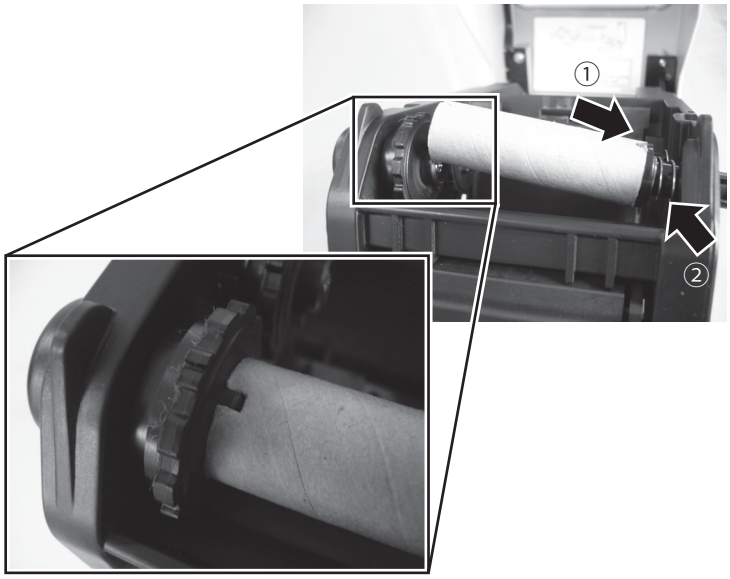




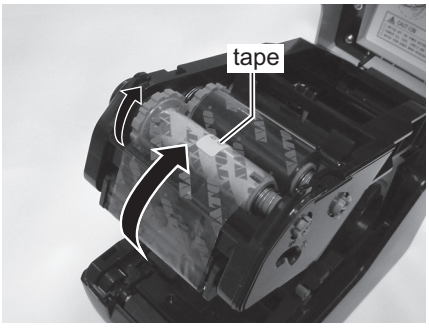
3. After setting the carbon ribbon in the right side of the ribbon supply unit (1), press the core guide (2).



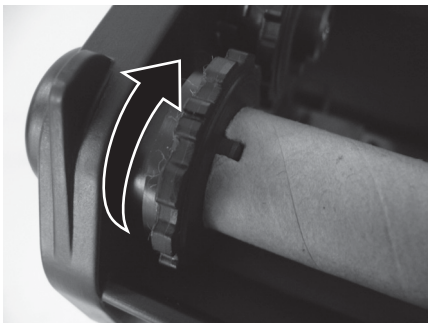
4. After setting the ribbon core in the right side of the ribbon windup unit (1), check that the projecting part on the printer is securely inserted into the opening on the roll. Next, press the core guide (2).



5. Pass the carbon ribbon from the ribbon supply unit beneath the print head to the ribbon windup unit. Affix the carbon ribbon to the ribbon core using tape, etc., and wind it up several times in the direction shown by the turn arrow.

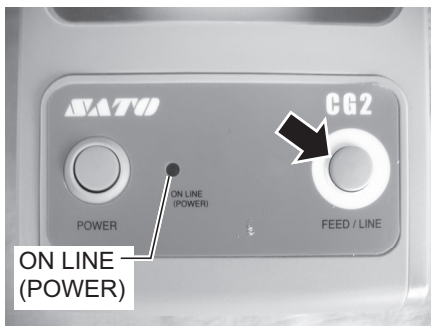


Wind up several times in the direction shown by the turn arrow.



6. Close the top cover. Press the top cover from above in the direction of the arrows until it clicks into position.r

7. When the printer is offline, the ON LINE (POWER) lamp blinks. Press the FEED/LINE button (1). The printer is online and the ON LINE (POWER) lamp is on. When the printer is ready, press the FEED/LINE button to output the top part of the paper.



CAUTION

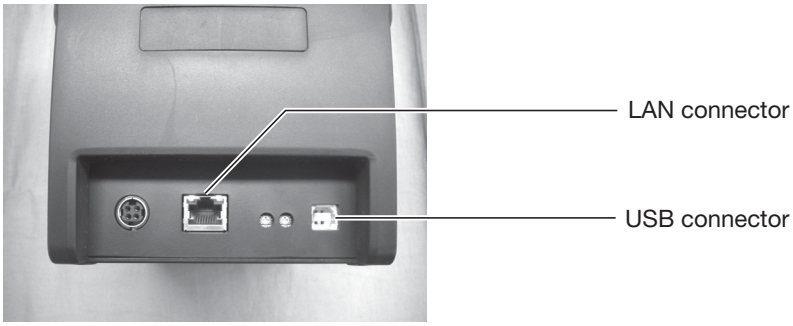
- After printing, the print head and surrounding area are hot. Be careful not to get burned when replacing the carbon ribbon immediately after printing.
- Touching the edge of the print head with bare hands could result in an injury.
- Be careful not to get your fingers pinched while closing the top cover.

6

CONNECTING TO A COMPUTER

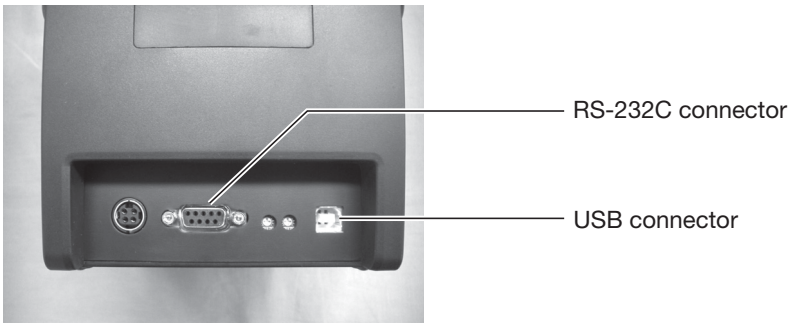
STANDARD INTERFACE

USB + LAN Type



1. Turn on the printer while pressing the FEED/LINE button. Continue pressing the FEED/LINE button until the ON LINE (POWER) lamp blinks green.
2. Each time you press the FEED/LINE button, the ON LINE (POWER) lamp indicator changes. When using the USB connector, check that the ON LINE (POWER) lamp is alternating between green and red. When using the LAN connector, check that the ON LINE (POWER) lamp is blinking green.
3. Press the FEED/LINE button for at least three seconds to register the connector type.
4. Check that the ON LINE/(POWER) lamp is lit green, and then turn off the printer. Turn on the printer again to activate the connector.

USB + RS-232C Type



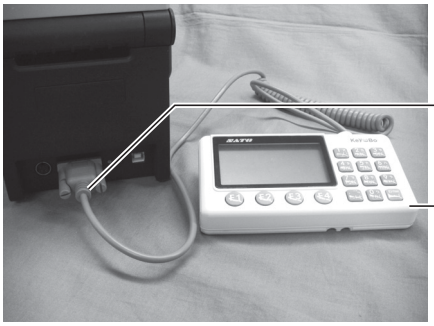
1. Turn on the printer while pressing the FEED/LINE button.
2. Each time you press the FEED/LINE button, the ON LINE (POWER) lamp indicator changes. When using the USB connector, check that the ON LINE (POWER) lamp is alternating between green and red. When using the RS232C connector, check that the ON LINE (POWER) lamp is blinking green.
3. Press the FEED/LINE button for at least three seconds to register the connector type.
4. Check that the ON LINE (POWER) lamp is lit green, and then turn off the printer. Turn on the printer again to activate the connector.

EXPANSION INTERFACE (OPTIONAL)

Wireless LAN Interface

1. Turn on the printer while pressing the FEED/LINE button. Continue pressing the FEED/LINE button until the ON LINE (POWER) lamp blinks green.
2. Each time you press the FEED/LINE button, the ON LINE (POWER) lamp indicator changes. When using the wireless LAN connector, check that the ON LINE (POWER) LAMP is alternating between green and red.
3. Press the FEED/LINE button for at least three seconds to register the connector type.
4. Check that the ON LINE (POWER) lamp is lit green, and then turn off the printer. Turn on the printer again to activate the connector.

KEYPAD (SIMPLE INPUT DEVICE (OPTIONAL))



1. Turn on the printer while pressing the FEED/LINE button. Continue pressing the FEED/LINE button until the ON LINE (POWER) lamp blinks green.
2. Each time you press the FEED/LINE button, the ON LINE (POWER) lamp is blinking red.
3. Press the FEED/LINE button for at least three seconds to register the connector type.
4. Check that the ON LINE (POWER) lamp is lit green, and then turn off the printer. Turn on the printer again to activate the connector.
5. Connect the communication cable of the keypad to the RS-232C connector on the printer. Check the orientation of the connector to be connected. While bracing the printer with one hand, securely connect the cable of the keypad to the printer.

The keypad (simple input device) can be used when the printer standard interface is the USB + RS-232C type.

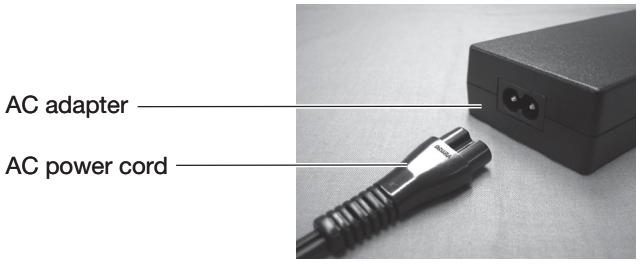
7

TURNING ON THE POWER

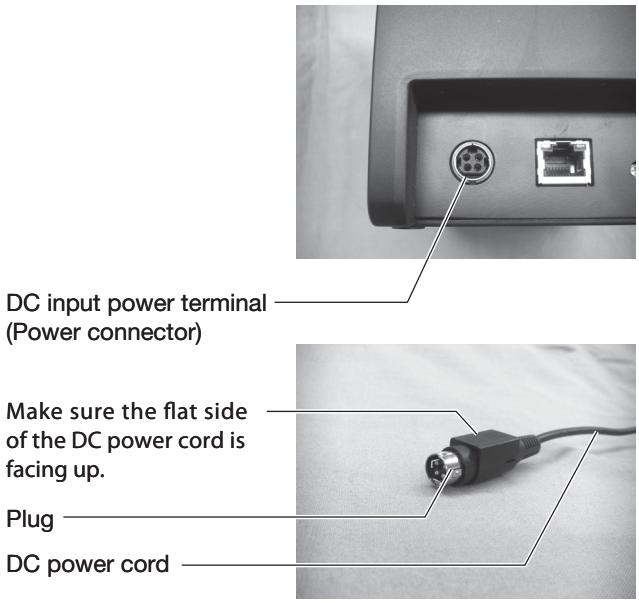
POWER SETTING

Connect the DC power cord of the AC adapter to the printer and turn on the power.

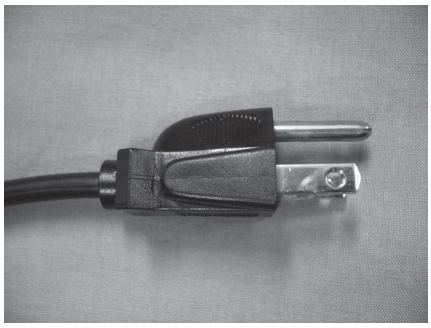
1. Connect the AC power cord to the AC adapter.



2. Connect the printer to the AC adapter. Connect the AC adapter to the AC power outlet. When connecting the DC power cord to the printer's power connector, make sure the DC power cord connector is oriented properly. When connecting the DC power cord to the printer connector, use one hand to hold the printer while using the other hand to plug in the cord.



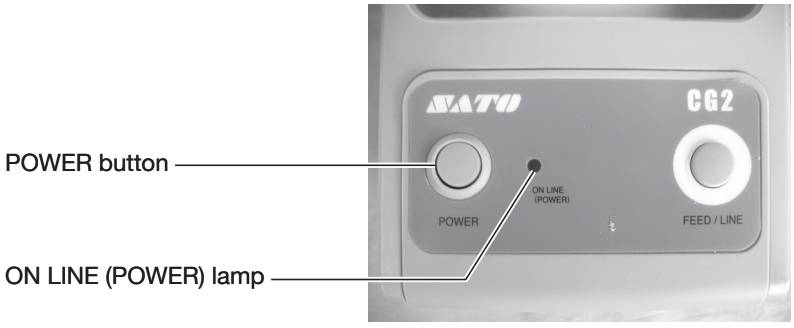
3. The plug of the supplied AC power cord is 3-pronged. One of the 3-pronged electrodes is dedicated to grounding. When the outlet is a 3-prong type, plug the AC power cord directly into it.



CAUTION

- Be sure to connect the ground wire to the ground opening in the outlet. Not connecting the ground wire could result in electrical shock.
- The power cord set supplied with this printer is only for use with this printer. Do not use it for other electrical devices.

4. Press the POWER button on the operation panel of the printer. The ON LINE (POWER) lamp is on. Check that the ON LINE (POWER) lamp is on.



CAUTION

- Do not operate the power switch or connect or disconnect the power cord with wet hands. Doing so could result in electric shock.

8

CLEANING THE PRINTER

This printer is used to print barcodes and data containing important information. If the printer parts become dirty, the printer may not be able to print barcodes and data accurately, and it may malfunction. Therefore, it is important to regularly clean the printer.

RECOMMENDED CLEANING SCHEDULE

It is recommended that you clean the printer with the cleaning sheet (sold separately) after six paper rolls or 984 feet (300 meters) of paper are discharged.

PRECAUTIONS WHEN CLEANING THE PRINTER

Observe the following precautions when cleaning the printer.

- The above recommended cleaning schedule is a general guideline. Clean the printer at a convenient time and according to actual printer conditions.
- Use cotton swabs and a cotton cloth when cleaning the printer parts.
- When using a screwdriver or other utensils during cleaning, be careful not to scratch the printer parts. Do not use utensils as tools to clean the print head.
- Be sure to turn off the printer before cleaning it.

9

BASIC SPECIFICATIONS

Model name	CG208 DT	CG212 TT	CG208 TT	CG212 TT
Head density (resolution)	203 dpi (8 dots/ mm)	305 dpi (12 dots/ mm)	203 dpi (8 dots/ mm)	305 dpi (12 dots/ mm)
Printing method	Direct Thermal		Thermal Transfer (Direct Thermal/ Thermal Transfer)	
Printing area	2.2” wide x 23.6” pitch (56 mm wide x 600 mm pitch)		2.2” wide x 15.7” pitch (56 mm wide x 400 mm pitch)	
Label issuing mode	Standard: Continuous mode, Tear off mode, Sensor off mode Optional: Dispenser mode, Cutter mode			
Printing speed	2, 3 or 4 inches/second (Setting: 2, 3, 4) 50, 75 or 100 mm/second (Setting: 50, 75, 100)			
Unprintable area	Label: Length direction Upper: 0.1” (1.5 mm) or less Lower: 0.1” (1.5 mm) or less (Not including backing paper) Width direction Left: 0.1” (1.5 mm) or less Right: 0.1” (1.5 mm) or less (Not including backing paper) Tag: Length direction Upper: 0.03” (0.8 mm) or less Lower: 0.03” (0.8 mm) or less Width direction Left: 0.03” (0.8 mm) or less Right: 0.03” (0.8 mm) or less			
Paper type	Roll paper, fan-folded paper			
Paper shape	Only use paper manufactured or specified by SATO.			
Paper thickness	60 to 190µm, 0.00” to 0.01” (0.06 to 0.19 mm)			
Label size	See Label size table later in this unit.			

Model name	CG208 DT	CG212 TT	CG208 TT	CG212 TT
Outer diameter of paper or Roll size	Label: Maximum ø 5.12” (130 mm) Inner diameter of roll: ø1.5” (ø40 mm) Wrist bands: Maximum ø4.33” (110 mm) Inner diameter of roll: ø1.5“ (ø40 mm) Tag: Maximum ø9.84” (250 mm) Inner diameter of roll: ø3” (ø76 mm) Use an external supply unit when setting a tag.			
Ribbon size Ribbon type Ribbon winding direction	-		Ribbon length: 50 m Ribbon width: 59 mm Winding direction: Face out Ribbon winding method: Roll-wound ribbon	
Standard installed fonts				
Bit map font	ANK font XU, XS, XM, XB, XL, OCR-A, OCR-B			
	OCR-A (15×22) OCR-B (20×24)	OCR-A (22×33) OCR-B (30×36)	OCR-A (15×22) OCR-B (20×24)	OCR-A (22×33) OCR-B (30×36)
Kanji font	Supported by downloading one of the following kanji fonts.: 1 Japanese (16x16, 22x22, 24x24, Kaku Gothic (JIS Std 1, 2, JIS X208)) 2 Chinese (24x24 GB2312) 3 Korean (24x24 KS X1001)			
Rasterized font	CG Times, CG Triumvirate			
Barcode	UPC-A/UPC-E, JAN/EAN, CODE39, CODE93, CODE128, GS1-128 (UCC/EAN-128), CODABAR (NW-7), ITF, Industrial 2 of 5, Matrix 2 of 5, BOOKLAND, MSI, POSTNET, GS1 DataBar (RSS)			
2D barcode	QR Code, Micro QR, PDF417, Micro PDF, MAXI Code, GS1 DataMatrix (ECC200)			
Composite symbol	JAN/EAN, UPC-A/UPC-E, GS1-128, GS1 DataBar (RSS)			
Printing direction (Characters/ Barcode)	Characters: 0, 90°, 180°, 270° Barcode: Parallel 1 (0°), Parallel 2 (180°), Serial 1 (90°), Serial 2 (270°)			
Barcode ratio	1:2, 1:3, 2:5, Free specification			
Magnification ratio (Characters/ Barcode)	Characters: Vertical ×1 to ×12, horizontal ×1 to ×12 Barcode: ×1 to ×12			

Model name	CG208 DT	CG212 TT	CG208 TT	CG212 TT
Self-diagnostic function	- Broken head element check - Paper end detection - Cover open detection - Test print		- Broken head element check - Paper end detection - Cover open detection - Test print - Ribbon end detection - Ribbon near-end detection	
Dimensions	5 in (W) x 9 in (D) x 7 in (H) 128 (W) × 235 (D) × 173 (H) (mm)			
Weight	3.3 pounds (1.5 kg)		3.5 pounds (1.6 kg)	
Power specifications	AC adapter Input power voltage: AC 100 to 240 V ±10%			
Power consumption	60 W (In standby: 2.5 W)			
Environmental conditions (Temperature/ Humidity)	Operating environment: 32°F to 95° (0 to 35°C), 30 to 80% RH (However, no condensation) Storage environment: 14°F to140°F (–10 to 60°C), 15 to 85% RH (However, no condensation) (Not including ribbon, labels, and other supplies.)			
Options	- Cutter unit - Dispenser unit - Wireless LAN (802.11b/g Auto switch) interface (External) - Keypad			
Interface	Select one of the following. (The factory will provide the unit with the selected interface.) 1 USB (Full speed) and RS-232C (D-SUB 9-pin) 2 USB (Full speed) and LAN (10 BASE/100 BASE-TX auto switching) * The RS-232C connector can be used to connect the printer to a computer or the keypad.			
LED	ON LINE (POWER) (Green/Red)			
Operation button	Button: POWER, FEED/LINE			
Potentiometer for adjustment	- I-mark sensor adjustment (Adjusts the sensor slice level.) - Label gap sensor adjustment/Center tag hole sensor adjustment (Adjusts the sensor slice level.) - Cut position adjustment (Can only be adjusted when the cutter unit is attached.) - Label dispenser stop position adjustment (Can only be adjusted when the dispenser unit is attached.)			
Paper length detection sensor	I-mark sensor (Reflective type) Label gap sensor (Transmissive type)			
Noise (EMC) standard	FCC15B Class B, CE (EN55022, EN55024), GB9254-1998, GB17625.1 (2003), KN22, KN24			

Notice regarding the registered trademarks and trademarks of other companies:
QR Code is a registered trademark of DENSO WAVE INCORPORATED.

Label size

Model name	CG208DT / CG208TT	CG212DT / CG212TT
Non-adhesive paper / Tag		
	Continuous type Pitch: 0.35” to 23.74” (9 to 603 mm) Width: 0.59” to 2.48” (15 to 63 mm) **Cutter type** Pitch: 0.98” to 23.74” (25 to 603 mm) Width: 0.59” to 2.48” (15 to 63 mm) **Tear-off type** Pitch: 0.59” to 23.74” (15 to 603 mm) Width: 0.59” to 2.48” (15 to 63 mm)	**Continuous type** Pitch: 0.35” to 15.87” (9 to 403 mm) Width: 0.59” to 2.48” (15 to 63 mm) **Cutter type** Pitch: 0.98” to 15.87” (25 to 403 mm) Width: 0.59” to 2.48” (15 to 63 mm) **Tear-off type** Pitch: 0.59” to 15.87” (15 to 403 mm) Width: 0.59” to 2.48” (15 to 63 mm)
Label	**Continuous type** Pitch: 0.24” to 23.62” (6 to 600 mm) (Backing paper 0.35” to 23.74” or 9 to 603 mm) Width: 0.59” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm) **Cutter type** Pitch: 0.87” to 23.62” (22 to 600 mm) (Backing paper 0.98” to 23.74” or 25 to 603 mm) Width: 0.59” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm) **Tear-off type** Pitch: 0.47” to 23.62” (12 to 600 mm) (Backing paper 0.59” to 23.74” or 15 to 603 mm) Width: 0.59” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm) **Dispenser type** Pitch: 0.87” to 3.94” (22 to 100 mm) (Backing paper 0.98” to 4.06” or 25 to 103 mm) Width: 0.59” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm)	**Continuous type** Pitch: 0.24” to 15.75” (6 to 400 mm) (Backing paper 0.35” to 15.87” or 9 to 403 mm) Width: 0.59” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm) **Cutter type** Pitch: 0.87” to 15.75” (22 to 400 mm) (Backing paper 0.98” to 15.87” or 25 to 403 mm) Width: 0.50” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm) **Tear-off type** Pitch: 0.47” to 15.75” (12 to 400 mm) (Backing paper 0.59” to 15.87” or 15 to 403 mm) Width: 0.59” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm) **Dispenser type** Pitch: 0.87” to 3.94” (22 to 100 mm) (Backing paper 0.98” to 4.06” or 25 to 103 mm) Width: 0.59” to 2.36” (15 to 60 mm) (Backing paper 0.71” to 2.48” or 18 to 63 mm)

Some restrictions may apply to the paper sizes that can be used, depending on the type of paper, usage environment, and application.

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